

WHAT IS CLAIMED IS:

1. A biosensor for detecting contents of biochemical components in a sample, comprising:
 - an electrically insulating substrate;
 - 5 an anode disposed on said substrate wherein said anode is formed with, on both ends of the anode, a working electrode and an anode connector respectively;
 - a cathode disposed on said substrate wherein said cathode is formed with, on both ends of the cathode, a reference electrode and a cathode connector respectively;
 - 10 a reaction layer disposed on said working electrode and said reference electrode, wherein said reaction layer and said electrodes form a reaction area for reacting with the sample;
 - an electrically insulating layer disposed on said substrate and having an opening for receiving the sample and an opening end wherein said insulating layer overlays the portion of said electrodes in the non-reaction area and said opening exposing a portion of the reaction area; and
 - 15 a reticular covering layer which covers said opening of said insulating layer wherein said reticular layer and said insulting layer form a sampling area from said reticular covering area to the edge of said test strip.
2. The biosensor of claim 1, wherein said substrate further has an indentation, a notch or a protruding under said opening end in said insulating layer serving as a sample contact point.
- 25 3. The biosensor of claim 1, wherein said working electrode has an area same as that of said reference electrode or said working electrode has a smaller or larger area than that of said reference electrode.
4. The biosensor of claim 1, wherein said reaction layer is made of a

formula comprising an enzyme, a carrier, an electrical medium and a surfactant.

- 5 5. The biosensor of claim 4, wherein said carrier is a microcellulose, methylcellulose, carboxymethyl-cellulose, starch, vinylalcohol, vinylpyrrolidone, P V A, P V P, P E G, or gelatin.
6. The biosensor of claim 4, wherein said carrier is 0.05 weight percent to 1.5 weight percent of the formula.
7. The biosensor of claim 4, wherein said electrical medium is potassium ferricyanide.
- 10 8. The biosensor of claim 4, wherein said surfactant is Triton X-100, Triton C-405, Triton X-114, sodium lauryl sulfate, polyoxyethylenesorbitan monolaurate (Tween 20), Tween 40, Tween 60, Tween 80, or other water-soluble surfactant or detergent.
- 15 9. The biosensor of claim 4, wherein said surfactant is less than 0.1 weight percent of the formula.
10. The biosensor of claim 1, wherein said electrically insulating layer is P P, P V C, P E T, P C, P E, or other insulating plastic materials.
11. The biosensor of claim 1, wherein said electrically insulating layer has a
20 thickness from 0.25 to 0.35 mm.
12. The biosensor of claim 1, which further comprises a separating layer with an opening which is disposed on and overlays said insulating layer wherein said separating layer and said insulating layer form a space, wherein said opening overlays said opening in said insulating layer.
- 25 13. The biosensor of claim 1, wherein said reticular covering layer is made of a hydrophilic reticular material or a hydrophobic reticular material or metal wire reticular material.
14. The biosensor of claim 1, wherein the reticular covering layer has 60 to 300 screens.

15. The biosensor of claim 1, wherein the reticular covering layer is a hydrophobic reticular material which is processed by a surfactant, plasma or corona.
16. The biosensor of claim 15, wherein the surfactant is Triton X-100, TritonX-405, TritonX-114, sodium lauryl sulfate, polyoxyethylenesorbitan monolaurate(Tween20), Tween40, Tween60, Tween80, or other water-soluble surfactant or detergent.